

## REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

The claims have been amended to make minor changes of an editorial nature. Thus, no new matter has been added to the application.

The patentability of the present invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Thus, the rejection of claims 1-9 and 17-26 under 35 U.S.C. § 102(b) as being anticipated by EP 0591962 or JP 06006383, as well as the rejection of claims 1-16 under 35 U.S.C. § 103(a) as being unpatentable over EP '962 or JP '383 are respectfully traversed.

[Initially, Applicants note that the Examiner refers to 35 U.S.C. § 102(b) or (e) in making the rejection on page 2 of the Office Action. However, 35 U.S.C. § 102(e) is inapplicable because 102(e) refers to published US applications or US patents. Therefore, 35 U.S.C. § 102(e) is inapplicable with respect to an EP and a JP patent.]

Applicants' claim 1 is directed to a polycarbonate copolymer (A) comprising an aromatic dihydroxy component, wherein the aromatic dihydroxy component comprises 5 to 95 mol% of fluorene-skeleton-containing dihydroxy compound (1) represented by the general formula [1], and 95 to 5 mol% of dihydroxy compound (2) represented by the general formula [2], and wherein the content of fluorene-9-one in the polycarbonate copolymer is not higher than 15 ppm.

The copolymer (A) is characterized in that the content of fluorine-9-one in the copolymer is not higher than 15 ppm.

When the polymer (A) contains fluorene-9-one as an impurity, the color and the physical properties of a molded article are deteriorated. (See page 4, lines 7-14 of Applicants' specification.)

Applicants have found that the formation of fluorine-9-one during polymerization can be suppressed specifically by carrying out the reaction substantially in the absence of molecular oxygen. (See page 15, lines 9-21 of Applicants' specification.) Further,

Applicants have found that adding a reducing agent such as hydrosulfite is effective to prevent the formation of molecular oxygen.

In the Example 1 of Applicants' specification, hydrosulfite is used as a reducing agent. The reaction was conducted using the following steps.

- (1) Water and NaOH were added to the reactor.
- (2) BCF, BPA and hydrosulfite were added to the reactor.
- (3) After 20 minutes, methylene chloride was added.
- (4) Phosgene was blown into the mixture for 60 minutes.

In Comparative Example 1 of Applicants' specification, the reaction was conducted using the following steps.

- (1) Water and NaOH were added to the reactor.
- (2) BCF, BPA and hydrosulfite were added to the reactor.
- (3) After 2.5 hours, methylene chloride was added.
- (4) Phosgene was blown into the mixture for 60 minutes.

In Comparative Example 1, hydrosulfite is used, similar to Example 1. However, the effect of hydrosulfite does not continue for more than 2 hours. Thus, the reaction of Comparative Example 1 is substantially conducted in the presence of oxygen. The fluorene-9-one content of the copolymer of Example 1 is much lower than that of the copolymer of Comparative Example 1, as shown below.

	BCF (mol%)	BPA (mol%)	Oxygen	Fluorene-9-one Content of Copolymer (ppm)
Ex.1 of the present text	70	30	None	2.3
C.Ex.1 of the present text	70	30	Exist	34.0
Ex.3 of D2	68.4	28.0	Exist	We assume that the content of Fluorene-9-one is essentially the same as C.Ex.1 of the present text

Thus, it is clear that the copolymer of Comparative Example 1 does not meet the limitations of Applicants' claims, which require a content of fluorine-9-one of not higher than 15 ppm.

EP 591,962 (EP '962 hereinafter) and JP 06116383 (JP '383 hereinafter) are family patents and disclose essentially the same invention. Both EP '962 and JP '383 are silent about the existence of molecular oxygen in the reaction system. Furthermore, both EP '962 and JP '383 are silent about using a reducing agent such as hydrosulfite to prevent the existence of molecular oxygen in the reaction system. Moreover, both EP '962 and JP '383 are silent about that the elimination of molecular oxygen imparts a copolymer having superior color and physical properties.

Example 3 of JP '383 discloses a copolymer similar to that of Example 1 and Comparative Example 1 of Applicants' specification, as shown in the table above. Although Applicants are unable to conduct the re-production of EP '962 or JP '383, because the processes are unique, Applicants' assume that the content of fluorene-9-one of the copolymer of JP '383 is the same as Comparative Example 1 of Applicants' specification.

Although the Examiner states that it would have been obvious to employ an atmosphere void of O<sub>2</sub> to avoid oxidation, Applicants respectfully disagree with this assertion. Neither of the references acknowledges that the formation of fluorine-9-one during polymerization can be suppressed by carrying out the reaction substantially in the absence of molecular oxygen. Additionally, neither of the references recognizes that a content of fluorine-9-one which higher than the value recited in Applicants' claims results in the degradation of the initial color after molding, or influences deterioration in the physical properties of a molded article and yellowing of the molded article caused by ultraviolet radiation. Furthermore, it appears that neither reference discloses Applicants' recited amount of fluorine-9-one.

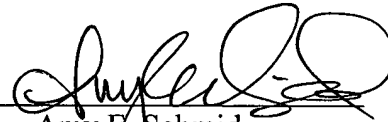
For these reasons, the invention of Applicants' claims is clearly patentable over the cited references.

Therefore, in view of the foregoing amendments and remarks, it is submitted that each of the grounds of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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